IT Unit 3

Topic 2

# Ch 2, Data Analytics: Drawing Conclusions, Part 1 Alex Hudson

**Data (Informatics, p 73 & 82)**

1. **Define data (p 73).** Data is unprocessed information, it’s made up of facts and statistics that have almost no meaning to them. Once they have been processed, the user will be able to understand it and it will be transformed into information.

**Primary & secondary data, p 82-91**

1. **Distinguish between primary & secondary data. List some strengths and weaknesses of both.**

Data that has not been filtered by interpretation or evaluation is called primary data. This is means it has come straight from the source and/or stakeholders, typically acquired via questionnaires. Secondary data differs from primary data because it has been collected and interpreted by someone other than the researcher, and is more information than data.

**Strengths of primary data-**

• Able to get the accurate results you need/want

• Information about the source is available

• Original data can be easily transformed to information.

**Strengths of secondary data-**

• Cheap, Quick and basic information.

• Widely available Data.

• Only way to collect all/old data.

**Weaknesses of primary data-**

• Time and labour intensive.

• Can be expensive/slow to collect.

• Data is scarce compared with researchers collected and supported by universities or companies.

**Weaknesses of secondary data-**

• May be partly irrelevant to research question.

• Sources and context may be unknown and unknowable.

• Potentially inaccurate, biased unrepresentative or even false.

**Quantitative and qualitative data, p 85**

1. **Distinguish between qualitative & quantitative data. List some strengths and weaknesses of both.**

The easiest way to identify quantitative and qualitative data is to think of them as quantity and quality. Quantitative data is concerned with numbers and measurements. It uses and objective approach, closed questions and can be easily scored. Qualitative data is expressed in words because it is concerned with feelings, personal views and experiences, and opinions. Qualitative data is much more difficult to analyse because it is subjective and very broad.

**Strengths of Quantitative data-**

• Expressed numerically; easy to analyse and interpret/analyse.

• Collected in large quantities, improves accuracy and effectiveness.

• Can be compared with previous data.

**Strengths of Qualitative data-**

• Concerned with opinions, feelings, motives and preferences.

• Holistic approach.

• Can inform policy development/development.

**Weaknesses of Quantitative data**-

• Doesn’t give us exact reasoning, just data itself.

• Usually collects a narrow and sometimes superficial dataset.

• Answers will not always answer the complete question.

**Weaknesses of Qualitative data-**

• Needs to be encoded to be analysed statistically.

• Conducted on a small and subjected scale.

• Subjective and opinionative.

1. **How can qualitative data be more easily processed?** It must be transformed by interpreting it and transforming it into understandable information. This will allow for users to understand it more clearly.

**Coding qualitative data, p 86**

1. **What techniques are used to collect quantitative data?** Surveys, Questionnaires, forms, opinion documentations and online data collection.
2. **How do you transform qualitative data into useful information?** It needs to be transformed by interpreting it and coding it into a summarised form that will help you to analyse it appropriately. This summarised form could be a label, category or simply a number.

**Case Study: Ready Set Go! GYM, read this case study.**

1. **What is meant by descriptive coding?** It’s when it reduces the original wordiness of the statement to a more manageable form using freely chosen summary terms.
2. **What is the role of a rubric?** A detailed list of descriptive grading criteria that correspond within the code.